

ABSTRACT OF THE DISCLOSURE

A method and apparatus for processing organic materials by anaerobic digestion is disclosed. The apparatus comprises a first covered fluid container, such as a retention pond covered with an oxygen impervious membrane. An aqueous slurry comprising anaerobically digestible fiber is disposed within the first container. A second covered container is disposed within or adjacent to the first container. The second covered container comprises a second upper section and a second lower section. An fluid inlet in the second upper section receives fluid flow from the first container, where a screen is disposed between the first container and the second container, across the fluid inlet. The fluid flow across the screen causes the formation of a filter cake on the screen as fluid flows across the screen, allowing for filtration of the aqueous slurry, and separation of liquids and gas as those components enter the second container. Each apparatus unit may be considered a module. A digester system may be formed by connecting a plurality of the modules together in parallel or in series.

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